

Technical Information

Gelatin Agar

Product Code: DM 1920

Application: - Gelatin Agar is recommended for cultivation and identification of *Vibrio* species.

Composition**

Ingredients	Gms / Litre
Gelatin	30.000
Casein enzymic hydrolysate	10.000
Sodium chloride	10.000
Agar	15.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

The natural habitat for *Vibrio* species is aquatic, found both in fresh and salt water. The growth and biochemical reactivity of most species are enhanced in different test media supplemented with 1- 2 % sodium chloride. *Vibrios* are fairly easy to isolate from both clinical and environmental material, though some species may require additional growth factors and /or vitamins. Media can be made selective for *Vibrio*'s by adding appropriate selective agents⁽¹⁾. High concentrations of NaCl and alkaline pH have also been used to isolate certain *Vibrio* species, based on the ability of most *Vibrio*'s to grow at pH values above 8.0 and at 3% or higher concentrations of NaCl. Gelatin Agar is formulated in accordance with APHA⁽²⁾ for the cultivation and characterization of *Vibrio* species from foods and faeces. Clinical specimens in the disease must be obtained as early as possible because the duration of excretion of the pathogen is short.

Weigh 25 grams of sample such as seafood or vegetables either blended or cut into small pieces and add into 2 flasks. Add 225 ml Alkaline Peptone Water (DM1618) to one flask and 225 ml of Glucose Phosphate Broth (DM1070) in another flask. Mix well. Incubate at 35° ± 2°C for 6 to 8 hours. Inoculate one loopful from each flask on the non-selective Gelatin Agar.

V. cholerae appears transparent and usually have a characteristic cloudy zone around colony, which becomes more definite after few minutes of refrigeration. When these colonies are viewed in oblique light they appear iridescent green to bronze coloured and finely granular.

Methodology

Suspend 65 grams in 1000 of powder media ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel and 3.0% Gelatin gel

Colour and Clarity of prepared medium

Yellow coloured, clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 6.5% w/v aqueous solution at 25°C. pH : 7.2±0.2

pH range 7.00-7.40

Cultural Response/ characteristics

DM 1920: Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth	Recovery	Gelatin liquefaction
Vibrio cholerae ATCC 15748	50-100	Luxuriant	>=50%	Positive reaction, clear zone around the colony within 24-48 hours
Vibrio parahaemolyticus ATCC 17802	50-100	Luxuriant	>=50%	Positive reaction, clear zone around the colony within 24-48 hours

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

2. Bruno Gomez-Gil and Ana Roque, Isolation, Enumeration and Preservation of the Vibrionaceae, F.L. Thompson, B. Austin and J. Swings. The Biology of Vibrios, ASM Press.

2. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.

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- User must ensure suitability of the product(s) in their application prior to use.
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